Math 3001: Analysis 1  
Spring 2016

Class meetings: MWF 10:00-10:50 a.m. in ECCR 118

Instructor:
Dr. Judith Packer  
MATH 227  
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http://spot.colorado.edu/~packer/16math3001.html

Office hours: MWF, 11:00 a.m. - 12:00 noon, or by appointment

Prerequisites: Math 2001 (Introduction to Discrete Mathematics), or the equivalent


Course outline: This course is meant to familiarize the student with the rigorous theory behind the study of functions of a single real variable, and goes over the proofs of some of the major results used in calculus. Topics to be covered include: the topology and order structure of the real line; sequences of real numbers and limits of sequences; functions of a real variable: limits of functions at a point, continuous functions and their properties – Intermediate Value Theorem, uniform continuity; the derivative of a function at a point and differentiability, the Mean Value Theorem, and Taylor’s Theorem; the Riemann integral and its properties, and the Fundamental Theorem of Calculus; and if time permits, a brief overview of series of real numbers and power series expansions.

Grading: Grades will be based on two in-class midterms (25% each), weekly homework assignments consisting of problems from the text (20%), and a comprehensive final exam (30%). You are allowed to work together on homework, although each student must submit an individual write-up. Homework will usually be due on Wednesdays, and late homework will not be accepted.

Test and exam dates:
Midterm 1: Wednesday, February 17, in class  
Midterm 2: Friday, April 1 (no fooling), in class  
FINAL EXAM: Tuesday, May 3, 1:30 p.m. – 4:00 p.m.
THERE WILL BE NO MAKE-UP EXAMS, so make sure now that you have no conflicts!
Friendly advice:

- **Come to class.** Things will often be said in class that are not covered in the text, and participating in classroom discussions is an important part of the learning process.

- **Read the book.** The text is intended to be read *in addition to* classroom lectures, and it contains many more details and examples than are possible to cover in lectures. It’s a new revision of a classic, and I’m also curious to see what’s new and what remains.

- **Do the homework.** Not only does it count for a significant portion of your grade, but this is one of the best ways to study and learn.

- **Come to office hours.** I am happy to help you with the homework, or discuss anything we’ve done in class.

Other important Dates:

- **Jan. 27 (Wed.):** Last day to drop a course without being assessed tuition and fees for that course and without having a “W” appear on the transcript for that course.

- **March 18 (Fri.):** Last day to drop a course without petitioning the dean. (Tuition assessments apply, depending on date course is dropped.) Also, this is the last day for students to make arrangements with me if they have three or more final exams on the same day or two final exams scheduled to meet at the same time.

- **April 29 (Fri.):** Last day for students to withdraw from the university for Spring semester. All withdrawals are assessed 100% of tuition and fees ($0 refund) and W grades are posted to transcripts.

Accommodations for disabilities: If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303–492–8671 or by e-mail at dsinfo@colorado.edu.

If you have a temporary medical condition or injury, see Temporary Injuries under Quick Links at Disability Services website (www.colorado.edu/disabilityservices/) and discuss your needs with your professor.

Religious observances: Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, assignments will either be rescheduled or dropped from grading calculations depending on the nature of the conflict. If you have a conflict, please advise me as soon as possible so that arrangements can be made. See full details at http://www.colorado.edu/policies/observance-religious-holidays-and-absences-classes-and-or-exams
Miscellaneous University Rules & Regulations:

- **Honor Code**: All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information on the Honor Code can be found at http://www.colorado.edu/policies/student-honor-code-policy

- **Classroom behavior policy**: Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student’s legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at http://www.colorado.edu/policies/student-classroom-and-course-related-behavior http://www.colorado.edu/osc/#student_code

- **Statement on Discrimination and Harassment**: The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. The University of Colorado does not discriminate on the basis of race, color, national origin, sex, age, pregnancy, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy in admission and access to, and treatment and employment in, its educational programs and activities. (Regent Law, Article 10, amended 11/8/2001). CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, “Protected Classes” refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have been discriminated against should contact the Office of Institutional Equity and Compliance (OIEC) at 303–492-2127 or the Office of Student Conduct and Conflict Resolution (OSC) at 303–492–5550. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be found at the OIEC website http://www.colorado.edu/institutionalequity/